

REMARKS

Prior to entry of the instant amendment, claims 1-19 are pending in the application.

Claims 1, 12 and 15 are independent. By the instant amendment, claims 1, 12 and 15 are amended, and claims 5, 14 and 18 are cancelled.

A. Introduction

In the outstanding Office Action Made Final:

1. claims 12-14, 17 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “*Mapping Acupuncture Points Using Multi Channel Device*” by Kwok et al. (“the Kwok et al. reference”) in view of U.S. Patent No. 6,014,583 to Nakagawara et al. (“the Nakagawara et al. reference”);
2. claims 1, 2, 4, 5, 7-11, 15, 16 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. and Nakagawara et al. references, and further in view of U.S. Patent Application Publication No. 2002/0062090 to Chai et al. (“the Chai et al. reference”);
3. claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al., Nakagawara et al. and Chai et al. references, and further in view of U.S. Patent No. 4,517,983 to Toyosu et al. (“the Toyosu et al. reference”); and
4. claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al., Nakagawara et al. and Chai et al. references, and further in view of “*The Design and Fabrication of a Micro-Thermal/Pressure-Sensor for Medical Electro-Skin Application*,” by Ho (“the Ho reference”).

B. Asserted Obviousness Rejection of Claims 12-14, 17 and 18

In the outstanding Office Action Made Final, claims 12-14, 17 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference in view of the Nakagawara et al. reference. By the instant amendment, independent claim 12 is amended to recite the subject matter of original claim 5 and similarly recited in claim 14. Claims 14 and 18 are cancelled. It is respectfully submitted that the combination of the Kwok et al. and Nakagawara et al. references fails to disclose or suggest each and every element of the rejected claims. Therefore, this rejection is respectfully traversed for at least the following reasons.

Claim 12 presently recites, *inter alia*, “wherein: in (b), a pressure applied to each of the measurement sensors is adjusted depending on a curvature of the region to be measured during measurement of skin impedance.” It is respectfully submitted that the subject matter recited in claim 12 is not disclosed or suggested by the Kwok et al. and Nakagawara et al. references, whether the references are considered alone or in combination.

Regarding the subject matter presently recited in claim 12, the instant application states,

During a local skin impedance measurement, pressure applied to each of the measurement sensors of the multichannel electrode 110 can be uniformly controlled, or can be controlled to be different for each measurement sensor, depending on the curvature of a measured body part.

(Paragraph [0031] of the pre-grant publication, U.S. 2004/0092839 A1 (emphasis added)).

Thus, the instant application describes an implementation that uses a uniform pressure, and also describes, as presently recited in claim 12, an implementation that uses a pressure that is different depending on the curvature of the measured body part. In contrast, the Kwok et al. reference merely teaches the use of a constant pressure, stating,

We have designed a probe that consists of 256 pins in a precise 16 x 16 square grid pattern. The probe is placed on the skin so that the pins slide freely allowing the weight of each pin to apply a constant pressure at each contact point.

(The Kwok et al. reference, page 69, ‘Method’ section (emphasis added)).

In view of this teaching, it is respectfully submitted that the Kwok et al. reference provides no disclosure or suggestion that the pressure applied at each of the measurement sensors, i.e., contact points, may be varied or controlled depending on a curvature of the region to be measured during measurement of skin impedance, as presently recited in claim 12. The Kwok et al. reference teaches that the pressure applied at each contact point is simply limited to that applied by the weight of each stainless steel flat-ended pin, regardless

of the curvature of the region to be measured. Thus, the device described in the Kwok et al. reference is incapable of varying or controlling the pressure applied to each sensor depending on a curvature of the region to be measured.

In view of the above, it is respectfully submitted that the asserted combination of the Kwok et al. and Nakagawara et al. references fails to disclose or suggest each and every element of claim 12. Accordingly, claim 12, and remaining claims 13 and 17 depending therefrom, are allowable over the Kwok et al. and Nakagawara et al. references. Therefore, it is respectfully requested that this rejection be favorably reconsidered and withdrawn.

C. Asserted Obviousness Rejection of Claims 1, 2, 4, 5, 7-11, 15, 16 and 19

In the outstanding Office Action Made Final, claims 1, 2, 4, 5, 7-11, 15, 16 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al. reference and Nakagawara et al. references, and further in view of the Chai et al. reference. By the instant amendment, independent claim 1 is amended to incorporate the subject matter of claim 5, and independent claim 15 is similarly amended. Claim 5 is cancelled. It is respectfully submitted that the combination of the Kwok et al., Nakagawara et al. and Chai et al. references fails to disclose or suggest each and every element of the rejected claims. Therefore, this rejection is respectfully traversed for at least the following reasons.

Claims 1 and 15 presently recite, *inter alia*, “a pressure applied to each of the measurement sensors is adjusted depending on a curvature of the region to be measured during measurement of skin impedance.” It is respectfully submitted that the Kwok et al. and Nakagawara et al. references fail to disclose or suggest this subject matter, as discussed above in section B regarding claim 12. Moreover, it is respectfully submitted that the Chai et al. reference fails to cure the deficiencies in the teachings of the Kwok et al. and Nakagawara et al. references. Accordingly, claims 1 and 15 are allowable over the asserted combination of references.

In view of the above, it is respectfully submitted that the asserted combination of the Kwok et al., Nakagawara et al. and Chai et al. references fails to disclose or suggest each and every element of independent claims 1 and 15. Accordingly, it is respectfully submitted that claims 1 and 15, and remaining claims 2, 4, 7-11, 16 and 19 depending therefrom, are allowable over the Kwok et al., Nakagawara et al. and Chai et al. references. Therefore, it is respectfully requested that this rejection be favorably reconsidered and withdrawn.

D. Asserted Obviousness Rejection of Claim 3

In the outstanding Office Action Made Final, claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al., Nakagawara et al. and Chai et al. references, and further in view the Toyosu et al. reference. Claim 3 depends from claim 1. It is respectfully submitted that the Toyosu et al. reference fails to cure the deficiencies in the teachings of the Kwok et al., Nakagawara et al. and Chai et al. references with respect to the subject matter presently recited in claim 1. Accordingly, claim 1, as well as claim 3 depending therefrom, are allowable over the asserted combination of references. Therefore, it is respectfully requested that this rejection be favorably reconsidered and withdrawn.

E. Asserted Obviousness Rejection of Claim 6

In the outstanding Office Action Made Final, claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kwok et al., Nakagawara et al. and Chai et al. references, and further in view of the Ho reference. Claim 6 depends from claim 1. It is respectfully submitted that the Ho reference fails to cure the deficiencies in the teachings of the Kwok et al., Nakagawara et al. and Chai et al. references with respect to the subject matter presently recited in claim 1. Accordingly, claim 1, as well as claim 6 depending therefrom, are allowable over the asserted combination of references.

Moreover, the Ho reference teaches a MEMS thermal sensor that is highly temperature sensitive. In particular, the thermal sensor has an electrical resistance that varies

with temperature.¹ One of ordinary skill in the art would appreciate that such a thermal sensor would be inappropriate for use as an electrode in the context of the teachings of the Kwok et al., Nakagawara et al. and Chai et al. references because it would fundamentally alter the signals being measured. Thus, the Ho reference cannot be combined with the Kwok et al., Nakagawara et al. and Chai et al. references in the manner asserted in the Office Action Made Final.

In view of the above, it is respectfully requested that this rejection be favorably reconsidered and withdrawn.

F. Entry Requested

Entry of the instant amendment is respectfully requested. The present recitation of the subject matter of original claims 5 and 14 in independent claims 1, 12 and 15 does not introduce new matter. Moreover, the subject matter presently recited in claims 1, 12 and 15 has been before the Examiner since the application was filed. Therefore, entry of the instant amendment does not require further search.

G. Conclusion

The above remarks demonstrate the failings of the outstanding rejections, and are sufficient to overcome them. However, while these remarks may refer to particular claim elements, they are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied art. Accordingly, it is respectfully submitted that the claims are allowable for reasons including, but not limited to, those set forth above, and patentability of the claims does not depend solely on the particular claim elements discussed above.

¹ See the Ho reference at, e.g., the Abstract, stating, "the resistance of the developed sensor is typically 502 Ω with a nominal temperature coefficient of resistance of 0.086%/°C." See also FIG. 6 therein, showing significant changes in output voltage as the temperature varies.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

Respectfully submitted,

LEE & MORSE, P.C.

Date: March 17, 2009



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Attachment: Petition for Extension of Time

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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.